Reading Strategy Use and Reading Performance Among Secondary School EFL Learners

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ABSTRACT

Employing reading strategies has been linked to reading comprehension; however, limited research has examined strategy preferences across proficiency groups and identified which strategies could predict reading outcomes among secondary school students in Vietnamese contexts. This study investigated 124 Grade 7 students at a secondary school in Dong Nai province. A mixed-methods design was employed, utilizing Mokhtari and Sheorey's (2002) Survey of Reading Strategies, a VSTEP A2 reading test, and semi-structured interviews (n = 8). The study revealed the following results. First, most participants favored problem-solving strategies. While both successful groups showed stronger preference for global reading strategies, the unsuccessful group chose support strategies. Interview data revealed five factors behind strategy selections including emotions, cognition, time, strategy adaptation, and reading preferences. Second, multiple regression analysis revealed that global reading strategies were positively associated with reading outcomes.

Keywords: reading strategies, EFL, reading performance

Introduction

Reading is an important skill that enables learners not only to acquire other language skills but also to acquire content knowledge across various subjects. Recognizing its importance, the Ministry of Education and Training (MoET) has set some standards and objectives for each grade. The main aim is that, rather than merely facilitating students' effective answers to textbook questions, the national curriculum focuses on developing students' ability to read and understand the content of authentic materials, preparing them for practical English use in real-life contexts (MoET, 2018b).

In line with these goals, schools have increasingly prioritized developing reading skills. The national examination also reflects this emphasis, consisting of three passages designed to assess both linguistic competence and reading comprehension. Given the limited time available for

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such examinations, students are required to develop effective reading skills to perform successfully.

Nevertheless, achieving good reading skills is not simple. Previous studies have documented some common struggles that learners encounter when learning this skill. For example, Al-Jarrah and Ismail (2018) and Hezam et al. (2022) found that insufficient linguistic competence often hindered comprehension. Another challenge arises during the process, where students fail to comprehend the text despite knowing every single word. Moreover, learners also face psychological barriers, such as a lack of interest, anxiety, and a lack of background knowledge, which hinder their comprehension.

To address these problems, many educators have introduced various solutions. For instance, Tran (2022) revealed that using task-based instruction significantly improved EFL learners' reading comprehension. Phan (2022) also suggested that the active learning technique facilitated students' critical thinking and their reading skills. In addition to the application of teaching methodology, the use of reading strategies also yields similar results. Numerous studies have shown the positive effects of reading strategies on reading performance both within (Nguyen, 2010; Nguyen, 2019) and outside (Phakiti, 2003; Zare, 2013) Vietnamese contexts. Additionally, research indicates that the strategy preference differs across proficiency levels (Zare-ee, 2007; Nguyen, 2010; Nguyen, 2019). Understanding these differences can provide low-proficiency students with an effective approach to enhance their reading comprehension skills. Moreover, some prior studies have shown that certain strategies could predict reading performance (Huang & Nisbet, 2014; Par, 2020). As a result, it is worth exploring which strategies have predictive value, as this can help students select a suitable strategy to maximize their comprehension.

Literature review

Reading strategies and classification

Many researchers have proposed with various definitions of reading strategies. At their core, reading strategies are techniques readers use to enhance their comprehension of texts (Block, 1986; Oxford & Crookall, 1989; Cohen, 1991). From this perspective, the primary aim of reading strategies is to enhance comprehension. Moreover, they help reduce problems that occur during the reading process and address factors that impede reading comprehension (Song, 1998).

The growing interest in reading strategies has led to various ways of categorizing reading strategies. Five particular influential categorizations were introduced by Olshavsky (1976), Block (1986), Oxford (1990), O'Malley and Chamot (2002), and Mokhtari and Reichard (2002).

Olshavsky (1976) was among the first to classify reading strategies into three types: word-level, clause-level, and story-related strategies. While the hierarchy of this model builds from basic to more complex levels, some strategies emerge to overlap. Furthermore, this model focuses solely on mental processes, omitting external techniques, leaving room for improvement in

subsequent frameworks.

Block (1986) categorized reading strategies into two types: general comprehension and local linguistic strategies. While this model retains the essential aspects of Olshavsky's (1976), it avoids overlap between strategies. However, like Olshavsky (1976), Block did not account for supportive techniques, which can be a limitation of his concept.

Oxford (1990) offered a classification into direct and indirect strategies. Each of these broad groups has three sub-categories. Direct strategies encompass memory, cognitive, and compensation strategies, whereas indirect strategies comprise metacognitive, affective, and social strategies. This model has been employed in later studies (Hoang, 2014; Nguyen, 2010; Phakiti, 2003). Unlike the previous concepts, Oxford's model emphasizes metacognition and external techniques, areas that previous models failed to include. Furthermore, since this model incorporates peer interaction, it may be more suitable for reading lessons rather than test-taking environments.

O'Malley and Chamot (2002) grouped reading strategies into three types: cognitive, metacognitive, and socio-affective strategies. As this was a modified version of Oxford (1990), it shares many similarities with this classification. The only difference is limited emphasis on external resources. Similar to Oxford's (1990) concept, the inclusion of discussion makes this model less applicable in test-taking situations.

Mokhtari and Reichard (2002) presented another influential classification, with three types: global reading, problem-solving, and support strategies. This model captures core elements of the prior framework while excluding emotional and interactional factors. As a result, it is suitable for the current study. Global strategies guide learners in managing their reading and emphasize global analysis. These include 13 strategies, namely setting goals, using background knowledge, previewing, thinking whether the content fits the reading purpose, skimming for structures, using context clues, using typographical features, critically analyzing and evaluating the information, checking understanding of new information, guessing the content, checking guesses, using tables and figures, and deciding what to read what to ignore. Problem-solving strategies help readers address difficulties they encounter in the reading process. These strategies include reading slowly and carefully, trying to get back on track when losing focus, adjusting reading speed, paying closer attention, stopping to think about the content, visualizing, re-reading, and guessing the meaning of unknown words. Support strategies primarily involve external aids and practical techniques. There are 9 strategies, with note-taking, reading aloud, summarizing, underlining, using reference materials, paraphrasing, going back and forth to find relationships among ideas, self-asking, translation, and thinking about the information in two languages.

Reading strategies used by EFL learners

Research on reading strategies employed by EFL learners is popular not only in Vietnam but also in other countries. These studies either investigated students as a whole or compared them across proficiency levels.

Several studies did not categorize students into levels. For example, Huang and Nisbet (2014) explored 121 adult EFL learners using the Survey of Reading Strategies (SORS) by Mokhtari

and Sheorey (2022) and a reading test of CASAS and BEST Literacy Test. Their findings revealed that participants preferred problem-solving strategies, followed by support strategies and global reading strategies. Similarly, Par (2020) investigated 56 English majors in Indonesia using the SORS and a reading achievement test. The results showed that most participants preferred problem-solving strategies over other strategy types. Nguyen (2019) explored 117 sophomores using the combination of the SORS and the Strategy Inventory for Language Learning (SILL) and the Cambridge Preliminary English Test for Schools (Volume 1) as a reading comprehension test. The results showed that problem-solving strategies were used most frequently, followed by global and support strategies. In contrast, Thuy (2018), investigating EFL learners using Oxford's (2013) Self-Strategic Regulation (S2R), revealed that these participants used cognitive strategies the most, followed by socio-cultural interactive and affective strategies, while metacognitive strategies were least used. Nguyen (2022) analyzed 67 Vietnamese non-English majors using the SORS. The findings from her study showed that support strategies were used more frequently than global and problem-solving strategies.

Other studies categorized students into successful and unsuccessful groups. For instance, Nguyen (2010) examined 171 non-English majors using the SILL and a comprehension test adapted from the Key English Test 2 and the Preliminary English Test 4. The findings revealed that students primarily chose cognitive and metacognitive strategies, while memory, compensation, affective, and social strategies were used to a moderate extent. Li (2010) examined 180 Chinese senior high school students using the Metacognitive Awareness of Reading Strategies Inventory (MARSI) and a comprehension test from the National English Matriculation Test (2016). The findings showed that problem-solving strategies were reported to be mostly applied, followed by global reading and support strategies.

Saengpakdeejit (2014) separated students into groups of highly successful, moderately successful, and unsuccessful. The study was conducted on 549 Thai university students using the SORS and the English Reading Proficiency Test. The study found that problem-solving strategies were the most common, followed closely by global reading and support strategies.

These studies consistently reported that problem-solving strategies were employed the most, followed by the use of global strategies and support strategies (Nguyen, 2010; Li, 2010; Saengpakdeejit, 2014; Nguyen, 2015; Nguyen, 2019; Par, 2020; Nguyen, 2022). Despite similar results on problem-solving strategies, Thuy (2018) and Huang and Nisbet (2014) showed that support strategies were chosen over global reading strategies. In other words, while the predominance of problem-solving strategies remained consistent, results on global reading and support strategies have yet been confirmed.

Some of these studies also explored group's preferences. Nguyen (2010) found that successful students used metacognitive strategies primarily and affective strategies least. On the contrary, cognitive strategies were often employed while social strategies were least used by unsuccessful students. Nguyen (2019) found that successful students preferred metacognitive strategies, whereas unsuccessful students relied on cognitive strategies. These studies suggested that global reading strategies were favored by successful students, while problem-solving strategies were particularly chosen by unsuccessful students (Nguyen, 2010; Nguyen, 2019). Additionally, both groups used support strategies least. Despite these insights, relatively few

studies have explored this matter.

Factors that influenced reading strategy selection

Studies on reading strategy choice identify some influential factors. For example, Tsai et al. (2023) considered lack of linguistic knowledge could affect the choice of strategy. It was also highlighted in Li et al.'s (2024) study, alongside gender, text types, reading anxiety, academic levels, and combined effects of nationality and GPA. In Cromico and Hermansyah's (2025) research, there were three major factors that contributed to the selection of reading strategies, consisting of: learner-related factors (language proficiency, motivation, gender, and academic level), instructional and textual factors (strategy training and text type), and emotional and cultural factors (reading anxiety and educational background).

These studies showed some common factors that influenced students' strategy selection. The most consistent finding was language proficiency, with high-proficiency students employing more advanced and diverse strategies than their low-proficiency counterparts. Li et al. (2024) and Cromico and Hermansyah (2025) found that female students used more strategies than males. Text types such as expository and argumentative also required more complex strategic efforts. Additionally, students with high anxiety relied on fewer and mostly simple strategies. Academic levels also played a role, with older students using a wider range of strategies than younger students.

Beyond these similarities, some results only appeared in specific studies. For instance, while Li et al. (2024) found the compound effect of nationality and GPA, this was not reported in other studies. Similarly, Cromico and Hermansyah (2025) found that strategy training, educational background, and motivation also shaped strategy selection. In other words, getting explicit training, coming from a learner-centered environment, and having high motivation often fostered greater and more varied use of reading strategies.

Reading strategies that predict reading performance

The predictive role of reading strategies for reading outcomes has also been uncovered in prior studies. Problem-solving strategies (Huang & Nisbet, 2014; Par, 2020) and support strategies (Huang & Nisbet, 2014) significantly predicted reading proficiency. However, this relationship was not consistently observed across studies. For example, Gönen (2015) investigated the reading strategies used by 55 EFL Turkish senior university students in an English Language Teaching Department, employing the SORS and a TOEFL reading test. The results showed that the use of reading strategies did not predict reading proficiency. In the same vein, Ghavamnia and Kashkouli (2022) examined the relationship among three variables - reading motivation, reading engagement, and strategy use – with L2 reading proficiency among Iranian EFL learners. Using the motivation for reading questionnaire, the reading engagement questionnaire, the SILL, and the IELTS reading test, their findings indicated that reading strategy was not a strong predictor of reading proficiency.

To sum up, while problem-solving strategies were re*port*ed to have strong predictive value *for* reading performance (Huang & Nisbet, 2014; Par, 2020), other authors *foun*d that reading strategy use did not have significant predictive value (Gönen, 2015; Ghavamnia & Kashkouli, 2022). Moreover, support strategies were *shown* to have predictive value in *only* one study

(Huang & Nisbet, 2014); thus, this remains insufficient.

Research gaps

Although research on reading strategy has been dominant, several gaps appear. First, while problem-solving strategies were consistently preferred by EFL learners, the preference for global reading and support strategies remains inconclusive. Second, there is still a lack of research examining groups' strategy preferences at the secondary school level. Third, evidence on which strategy predicts reading performance remains unclear. Additionally, there have been no studies on these matters within the context of the present research. As a result, this study was undertaken to fulfill these gaps.

Research Questions

The purpose of this study was to identify the strategies used by ELF secondary school learners at Long Thanh Secondary School. In addition, it sought to uncover the types of strategies favored by different proficiency groups. The study also explored the factors influencing their choice and determined which strategies had predictive value for reading outcomes. To achieve these purposes, the study aimed to answer the following research questions:

1. What reading strategies are used by EFL learners at Long Thanh Secondary School?

2. Which reading strategies can predict reading performance among EFL students at Long Thanh Secondary School?

Methods

Pedagogical Setting & Participants

The study was conducted at Long Thanh Secondary School in Dong Nai Province. This is a public school that has been in operation for nearly forty years. The school is of medium size and equipped with modern facilities that meet basic technological requirements, including smart TVs, speakers, labs, and internet access.

Currently, the school serves about 1,500 students in grades 6 to 9. Most students come from moderate-income families and have full access to modern technology. 124 grade 7 students from three classes participated in the study using a convenience sampling approach (Fraenkel et al., 2023), as these were students the researcher was responsible for. All participants received similar language instructions and were at the A2 CERF level. Based on the reading comprehension test scores and school benchmark criteria, these students were categorized into three groups: 47 highly successful (8 points or above), 58 moderately successful (5–7.9 points), and 19 unsuccessful (below 5 points). These students have learned English for three to five years.

Design of the Study

This study employed an exploratory sequential mixed-methods design, involving the collection of both quantitative and qualitative data (Creswell & Guetterman, 2019). The quantitative phase

adopted a descriptive-correlational design to identify the reading strategies used by EFL secondary learners across proficiency groups and to determine which strategies predict reading outcomes. Moreover, qualitative data were collected to explore the factors that affect their choices.

Data collection & analysis

Three instruments were used in this study. The first was a reading comprehension test, the VSTEP A2 Reading Test. This test serves as an alternative to other international examinations and aligns with the Vietnamese context (Quynh, 2018). The study utilized the Mock Test 1 at level A2, developed by the University of Languages and International Studies at Vietnam National University. There were four parts in the test. In Part 1, students applied their grammatical and linguistic knowledge, as well as reading comprehension skills, to complete an 8-question cloze test. The remaining parts focused solely on reading comprehension. In Part 2, students matched signs or announcements with their correct meanings (8 questions). In Part 3, they read an invitation and a note, then filled in the missing information with correct details within word limits. Part 4 required students to read a 300-word passage and choose the correct answers. In total, there were 30 questions. To align results with the school benchmark, the number of correct answers was divided by three. This test was selected for three reasons. First, it follows the CEFR framework (Quynh, 2018), which helps ensure validity and reliability. Second, it contains similar test formats and question types to those of their midterm and final exams. Third, its topics were closely familiar and related to what they had learned at school, reducing the anxiety of unfamiliarity.

The second instrument was a questionnaire with two parts. The first part asked about participants' demographic information, while the second part was a reading strategies questionnaire adapted from Mokhtari and Sheorey's (2002) Survey of Reading Strategies (SORS), which is widely used in test-taking contexts. It has been used by previous studies (Huang & Nisbet, 2014; Saengpakdeejit, 2014; Nguyen, 2019; Par, 2020; Nguyen, 2022). The original questionnaire consisted of 30 five-point Likert scale items, ranging from 1 (never) to 5 (always). For this study, some overlapping items were modified or omitted to better suit the test design. After the pilot study, several items were further deleted because they lowered the Cronbach's Alpha. The final questionnaire contained 19 items, covering the three original categories (global, problem-solving, and support strategies), with an overall Cronbach's Alpha of .791. The overall average score for strategy use followed Mokhtari and Sheorey's (2002) benchmark, which classified strategy use as: high use (3.5 or higher), medium (2.5-3.4), and low (below 2.5).

The third instrument was semi-structured interviews, which explored participants' strategy use and the rationale for their choices. Guiding questions focused on which strategies students used during the test *and* why they selected them.

Before conducting the official study, permission was obtained from the headmistress and the form teachers of the three classes. Students were recruited using convenience sampling *because* the author *taught* English in their classes. Participants were informed about the purpose of the study, their right to withdraw at any time, and the assurance of confidentiality, as their data were

anonymized. The instruments were piloted with 10 students (tests and questionnaires) and 2 students (interviews), after which revisions were made to improve clarity.

The official test and questionnaire were administered on the same day for two classes. The test lasted approximately 40 minutes, after which questionnaires were distributed and completed within 15 minutes. Due to schedul*ing conflicts*, one class completed *the* test and *the* questionnaire separately. Students were labelled *with* numbers and *letters*, *indica*ting the groups they were in. For example, S45-H is the 45th student in a highly successful group, S3-M is the 3rd student in a moderately successful group, and S7-U is the 7th student in an unsuccessful group. Following *the* quantitative analysis, eight students (3 highly successful, 3 moderately successful, and 2 unsuccessful) were purposively selected for interviews *based on* their availability to meet with the researcher. Each group was interviewed on a separate day over 3 days, and each interview lasted about 15 minutes.

Data analysis was conducted in two phases. Quantitative data from the test and questionnaire were analyzed using descriptive statistics (means and standard deviations) to examine the frequency of strategy use across groups. Multiple regression analysis was performed to *identify* which strategies *exhibited* strong predictive value. Qualitative data from the interviews were transcribed, coded, and analyzed to explore the reasons for their strategy selection.

Results/Findings

Table 1.

Descriptive Statistics of Reading Strategies Used by Participants

	N=124	
	M	**SD**
Global reading strategies	3.19	0.57
Problem-solving strategies	3.57	0.70
Support strategies	3.08	0.80
Overall reading strategy use	3.27	0.55

Table 1 shows descriptive statistics in terms of overall reading strategy use, revealing that participants used reading strategies at a medium level (M=3.27, SD=.55). In addition, the use of problem-solving strategies was the most dominant (M=3.57, SD=.70). This was followed by global strategies and support strategies with mean scores of 3.19 (SD=.57) and 3.08 (SD=.80), respectively.

Table 2.

Mean Scores of Individual Problem-solving Strategies

Items	N=124	
	M	SD
11. When text becomes difficult, I pay closer attention to what I am reading.	3.93	1.12
13. When text becomes difficult, I re-read it to increase my understanding.	3.85	1.21
14. When I read, I guess the meaning of unknown words or phrases.	3.72	1.29
9. I read slowly and carefully to make sure I understand what I am reading.	3.51	1.27
10. I adjust my reading speed according to what I am reading.	3.45	1.30
12. I try to picture or visualize information to help remember what I read.	2.78	1.32

Table 2 details information on individual problem-solving strategies. It can be seen that four out of six problem-solving strategies were often employed, with strategy 11, *"When text becomes difficult, I pay closer attention to what I am reading"* (M=3.93), being the prevalent. This was followed by three strategies, namely strategy 13 *"When text becomes difficult, I re-read it to increase my understanding*" (M=3.85), strategy 14 "*When I read, I guess the meaning of unknown words or phrases"* (M=3.72), and strategy 9 *"I read slowly and carefully to make sure I understand what I am reading"* (M=3.51). The rest of the strategies demonstrated a moderate usage, specifically, strategy 10, *"I adjust my reading speed according to what I am reading,"* and strategy 12, *"I try to picture or visualize information to help remember what I read".*

Table 3.

Mean Scores of Individual Global Reading Strategies

Items	N=124	
	M	SD
2. I take an overall view of the text to see what it is about before reading it.	3.63	1.25
8. I check to see if my guesses about the text are right or wrong.	3.44	1.35
3. When reading, I decide what to read closely and what to ignore.	3.43	1.21
6. I check my understanding when I come across new information.	3.35	1.05
1. I think about what I know to help me understand what I read.	3.25	1.19
7. I try to guess what the content of the text is about when I read	2.87	1.28
4. I use context clues to help me better understand what I am reading.	2.77	1.24
5. I critically analyze and evaluate the information presented in the text.	2.60	1.28

Table 3 demonstrates statistics for global reading strategies. Only strategy 2 *"I take an overall view of the text to see what it is about before reading it"* (M=3.63) was most frequently used. In contrast, the remaining strategies of this group showed moderate adoption levels, with mean scores from 2.60 to 3.44. More specifically, the higher end consisted of strategy 8 *"I check to see if my guesses about the text are right or wrong"* (M=3.44), strategy 3 *"When reading, I decide what to read closely and what to ignore"* (M=3.43), strategy 6 *"I check my understanding when I come across new information"* (M=3.35), and strategy 1*"I think about what I know to help me understand what I read"* (M=3.25). In contrast, the lower end included strategy 7 "*I try to guess what the content of the text is about when I read"* (M=2.87), strategy 4 *"I use context clues to help me better understand what I am reading"* (M=2.77), and strategy 5 *"I critically analyze and evaluate the information presented in the text"* (M=2.60).

Table 4.

Mean Scores of Individual Support Strategies

Items	N=124	
	M	SD
17. I go back and forth in the text to find relationships among ideas in it.	3.64	1.09
18. When reading, I translate from English into my native language.	3.41	1.33
19. When reading, I think about information in both English and my mother tongue.	3.17	1.31
16. I paraphrase (restate ideas in my own words) to better understand what I read.	2.75	1.21
15. I take notes while reading to help me understand what I read.	2.42	1.34

The results from Table 4 revealed a variation in strategy use, particularly strategy 17, "*I go back and forth in the text to find relationships among ideas in it,*" which was highly used, with a mean score of 3.64. Strategy 18 *"When reading, I translate from English into my native language"*, strategy 19 *"When reading, I think about information in both English and my mother tongue"*, and strategy 16 *"I paraphrase (restate ideas in my own words) to better understand what I read"* fell in the medium range, which scored an average of 3.41, 3.17, 2.75, respectively. On the contrary, the lowest adoption rate was in strategy 15, *"I take notes while reading to help me understand what I read"* (M=2.42).

Table 5.

Mean Scores of Reading Strategy Types Among Highly Successful, Moderately Successful, and Unsuccessful Students

Groups	Statistics		Global reading strategies	Problem-solving strategies	Support strategies	Total reading strategies
Highly successful	N=47	M	3.46	3.65	3.14	3.42
		SD	0.56	0.77	0.80	0.59
Moderately successful	N=58	M	3.13	3.53	3.08	3.27
		SD	0.59	0.67	0.73	0.55
Unsuccessful	N=19	M	2.53	3.30	2.93	2.96
		SD	0.46	0.74	0.97	0.52

Across proficiency groups, problem-solving strategies were used most frequently by three groups, while the remaining strategies varied. While highly successful and moderately successful groups favored global reading strategies (M=3.46, M=3.13) over support strategies (M=3.14, M=3.08), the reverse trend was seen in the unsuccessful group (M=2.53, M=2.93).

Data from the interviews revealed several reasons students frequently chose certain reading strategies. First, several reading strategies serve psychological functions. They helped students reduce anxiety, boost confidence, and feel secure in their responses in preparation, answer verification, and the prevention of reading overwhelm. One participant (S45-H) reported using a paying closer attention strategy (strategy 11), which helped him understand the complex parts while ensuring he did not miss any information, thereby increasing his confidence in his answer.

Second, cognitive support also influenced strategy selection by assisting with information and

word retention. Participant S25-M explained: *"Because I often forget what I've read, so I reread to remember the content better",* which made him usually revisit text to look for ideas' connection (strategy 17).

Third, time was another crucial factor, especially for highly successful and unsuccessful students. These strategies helped them save time by allowing them to allocate their time more effectively, locate information quickly, and enhance their overall comprehension. Participant S106-M used previewing (strategy 2) since *"This helps me save time because I grasp the content without reading everything. I read the first and last sentences of each paragraph."*

Fourth, strategies that guide learners to use subsequent strategies also contributed to the selection of those strategies. This theme was only reported by a moderately successful student. As S3-M explained: *"[previewing] (strategy 2) allows me to know what I'm going to read and know whether I should change the strategies."* In other words, strategies that provided participants with a hint on a suitable strategy to use next were likely to be used frequently.

Finally, strategies that aligned with or facilitated students' reading preference also influenced their choices. As S3-M described, guessing unfamiliar words (strategy 14), *"To avoid interrupting my reading flow. I use other words in the sentence to guess."* This suggests they preferred continuous, nondisruptive reading rather than word accuracy.

Assumption checks were conducted to verify the appropriateness of the regression model, revealing no violations of normality, linearity, multicollinearity, homoscedasticity, or outliers. Nevertheless, the assumption of correlation was checked and showed that the support strategy did not correlate significantly (p=.299, r=.05). As a result, only global reading and problem-solving strategies were retained in the model.

Table 6.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.53	0.282	0.27	1.73

a. Predictors: (Constant), PROB_Mean, GLOB_Mean

b. Dependent Variable: Score

From Table 6, the model explained 28.2% of the variance in reading comprehension, $R^2 = .282$, and the adjusted $R^2 = .27$, indicating a moderate level of explanatory power after accounting for the number of predictors. The standard error of the estimate was 1.73, suggesting that the predicted scores would deviate, on average, about 1.73 points from the actual scores.

Table 7.

ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	141.52	2	70.76	23.75	<.001
	Residual	360.53	121	2.98		
	Total	502.05	123			

a. Dependent Variable: Score

b. Predictors: (Constant), PROB_Mean, GLOB_Mean

From Table 7, the overall regression model was statistically significant, F (2, 121) = 23.75, p<.001. This result suggests that the two reading strategies could significantly predict students' reading scores.

Table 8.

Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients Beta	t	Sig.
		B	Std. Error			
1	(Constant)	2.52	0.88		2.87	0.005
	GLOB_Mean	1.96	0.3	0.62	6.54	<.001
	PROB_Mean	-0.52	0.26	-0.19	-1.97	0.051

a. Dependent Variable: Score

As seen from Table 8, global reading strategies were the only significant predictor of reading comprehension scores (β =.616, p<.001). This indicates that students who used global reading strategies more frequently were likely to achieve higher reading scores. In contrast, problem-solving strategies ($\beta = -.186$, p=.051) did not significantly contribute to the prediction of reading scores. This means the frequency of using problem-solving did not predict the increase in reading scores.

Discussion

Strategies used by EFL secondary learners

EFL learners at Long Thanh Secondary School adopted reading strategies at a moderate level. This aligns with several prior studies, such as Nguyen (2010), Li (2010), Nguyen (2015), Nguyen (2017), and Nguyen (2019), who also reported medium strategy use among EFL participants, but contrasts Huang and Nisbet (2014), Par (2020), and Nguyen (2022), whose participants were active strategy users. Medium strategy adoption and the disparity with previous studies may be due to two factors: working memory and training duration. In the current study, participants were Grade 7 students, whereas those of Huang and Nisbet (2014), Nguyen (2022), and Par (2020) were adult learners and English majors at the university. As

young students tend to have less developed working memory than older learners (DeKeyser & Koeth, 2011, as cited in Hinkel, 2011), this may lead learners to neglect strategy use and rely on simple, familiar techniques. Additionally, the short duration of strategy instruction may leave new techniques limited time to become automated (Atkinson & Shiffren, 1969, as cited in Hummel, 2014). Participants in the current study received only nearly one year of training. This, coupled with limited working memory, resulted in a moderate application as they may not have fully internalized it.

Most participants preferred problem-solving strategies, followed by a moderate use of global reading and support strategies. This finding is compatible with Nguyen (2010), Li (2010), Saengpakdeejit (2014), Nguyen (2015), Nguyen (2019), Par (2020), and Nguyen (2022), who revealed similar students' strategy preferences. This may lie in the test-oriented goals of choosing efficiency over deep comprehension, leading to choices of problem-solving strategies. However, this finding does not align with Huang and Nisbet (2014) and Thuy (2018), who found that students favored support strategies over global reading strategies. The variation from Huang and Nisbet's (2014) study may stem from differences in learning backgrounds. Unlike Grade 7 students, adult EFL learners in Huang and Nisbet (2014) had limited academic learning experience, which led them to rely on external, practical techniques rather than advanced mental techniques. While Grade 7 students adopted strategies, such as previewing, for speed and accuracy, the older students chose support strategies to compensate for their constrained learning experience. Besides, the limited use of global reading strategies in Thuy's (2018) study may stem from participants' primary aim of obtaining correct answers rather than comprehending the test to achieve sufficient credits to pass.

Highly and moderately successful students preferred global strategies, while unsuccessful students chose support strategies. This result partially supports Nguyen (2010), who suggested that both successful students chose to apply global reading strategies. The reason may lie in working memory capability. Dekeyser and Koeth (2011, as cited in Hinkel, 2011) suggest that working memory is also significantly correlated with proficiency levels. High-level learners usually have stronger working memory, enabling them to effectively choose, manage, and evaluate their plans, leading to frequent use of strategies to achieve holistic understanding. In contrast, low-proficiency students have limited working memory, leading them to use simpler strategies to support their comprehension. Nevertheless, the finding contrasts with Nguyen's (2010) finding, which showed that unsuccessful users used support strategies the least. The difference may lie in terminology and environment. While affective and social strategies covered interaction and emotion-control techniques in Nguyen's (2010) study, support strategies in the current study targeted only readers. Additionally, given the test-taking environment, participants in Nguyen's (2010) study would be unable to use any affective or social strategies. The findings suggest that training for low-performing groups should be on global reading strategies.

Rationale for strategy selection

Three groups reported using certain strategies frequently due to specific factors. First, psychological support was reported as the primary reason for strategy selection across the three groups, consistent with Li et al. (2024) and Cromico and Hermansyah (2025), who found that

reading anxiety significantly influenced strategy selection. According to the Affective Filter Hypothesis (Krashen, 1984), reduced negative emotions facilitate comprehension. Participants revealed that these strategies could help them lower anxiety and boost confidence through verification and mental preparation, leading to frequent use of them.

Cognitive support was the second factor, which partially aligns with Seifoori (2024), who found a weak, positive relationship between reading comprehension and content retention among EFL learners at the postgraduate level. Learners in this study were grade 7 students who were likely to have limited working memory capacity (DeKeyser & Koeth, 2011, as cited in Hinkel, 2011). Therefore, this likely constrains their ability to remember information effectively, and frequent use of strategies that possess this characteristic could manage these cognitive limitations.

Third, time efficiency was critical for highly and moderately successful groups. This aligns with previous studies by Ali et al. (2020) and Hassan and Dweik (2021), who revealed that time management was a shared significant challenge in the reading process. This may be rooted in participants' goals. In a test-taking environment, while less successful students may concentrate solely on getting the correct answers, successful peers may want to balance both speed and precision. As a result, selecting strategies that can help them allocate time efficiently or facilitate quick comprehension would be more appealing to high-performing participants.

Another motivator of strategy selection was strategic adaptation, as noted by a moderately successful student. While this was limited to a single student, it may indicate self-regulation. Self-regulation is "the degree to which students are metacognitively, motivationally, and behaviorally active participants in their own learning process" (Zimmerman, 1989), and students' ability to judge and select appropriate strategies for different demands reflects some extent of self-regulation. Although this was underexplored in prior studies, this suggests that strategies supporting self-regulation promote motivation, shaping strategy use. In other words, if strategies help students have a clear view of which ones to use next, this makes them more confident and motivated, potentially leading to more consistent use of those strategies.

Finally, moderately successful students emphasized alignment with personal reading preferences. Krashen's Affective Filter Hypothesis (1984) may offer a plausible explanation. Students are more likely to engage in strategies that bring them comfort. When strategy use aligns with what they prefer or feel comfortable with, it would lower emotional barriers and increase frequency of use (Cromico & Hermansyah, 2025). In short, taking these factors into consideration can help both teachers and students effectively design individualized strategy lists.

Strategies that predicted reading performance

The use of a global reading strategy can predict the reading outcomes, whereas problem-solving and support strategies were not significant predictors. This contradicts Huang and Nisbet (2014) and Par (2020), who identified problem-solving and support strategies as key predictors of students' reading achievement. Additionally, the finding also partially contrasts Gönen (2015) and Ghavamnia and Kashkouli (2022), who found that reading strategy use was not a strong predictor of reading performance.

The predictive value of global reading strategies may lie in their nature. Strategies such as

previewing and predicting allow participants to comprehend the text's gist reading. In contrast, problem-solving strategies help students target specific reading problems when comprehension breakdowns occur. In other words, problem-solving strategies do not aim at global understanding, which may lead to comprehension gaps. Moreover, participants revealed minimal use of support strategies, which may explain their lack of predictive value.

The difference between Par's (2020) and Huang and Nisbet's (2014) may arise from test design. Par (2020) used only multiple-choice questions, whereas Huang and Nisbet (2014) included various types, such as multiple-choice questions, labeling, and note-filling. It is possible that these tests target detailed reading; therefore, they favored the use of problem-solving and support strategies. On the other hand, the questions in the current study included cloze tests, multiple-choice questions, matching exercises, and note-filling tasks, and these questions assessed both gist and specific information, which align better with global reading strategies.

As for Ghavamnia and Kashkouli (2022), the reason may lie in the mode of test administration. These authors administered the test online, whereas the test was delivered offline in this study. Online test administration may have affected emotions and motivation, so it could also influence strategy use and reading performance.

In comparison, Gönen (2015) attributed the lack of predictive value to metacognitive awareness rather than to frequency of use, suggesting that higher levels knew how to employ strategies effectively. This can also account for the findings of this study. As found out in the previous findings, high-proficiency learners chose global strategies over support strategies. This suggests that high-proficiency learners with developed metacognitive awareness may know the types of strategies that can optimize comprehension, thereby making global reading strategies significantly more predictive of reading outcomes. This further reinforces the need for training in global reading strategies to help learners maximize their reading performance.

Conclusion

This study explored the reading strategies used by EFL secondary school learners, both generally and distinctively, across three proficiency levels. The findings showed that general learners used problem-solving strategies most, followed by global reading and support strategies. In addition, higher-proficiency groups prioritized global reading strategies over support strategies, whereas the reverse trend was observed in the low-proficiency group. Moreover, it sought to identify the reasons behind the frequently chosen strategies, and the results revealed five influential factors: psychological support, cognitive support, time efficiency, strategic adaptation, and alignment with reading preferences. Additionally, it investigated which strategies had strong predictive value for reading outcomes, revealing that a higher frequency of global reading strategies was associated with better reading performance. These findings suggest that teachers should emphasize training in global reading strategies, especially for low-level students who rely heavily on support strategies. At the same time, teachers should choose the strategies while considering the mentioned factors for each individual to maximize their reading comprehension.

Although this study adds to the literature on reading strategies and their predictive value, several

limitations should be noted. First, only grade 7 was included in this study, which may limit the extent to which these findings can be generalized. Future studies could involve students from different levels and contexts to enhance the applicability. Second, findings from qualitative data may be affected by the timing of data collection, as students may struggle to recall their use of strategies. The following research should collect qualitative data, either in conjunction with quantitative data or through other instruments, such as retrospective interviews, to provide a more comprehensive picture.

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